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09/787,638	04/30/2001	Andreas Plettner	3132	4860

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EXAMINER

TRINH, MINH N

ART UNIT

PAPER NUMBER

3729

DATE MAILED: 10/09/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/787,638

Applicant(s)

PLETTNER ET AL.

Examiner

Minh Trinh

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 November 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 1.5.
- ☐ Interview Summary (PTO-413) Paper No(s) _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claims 1-10 are objected to, the following are examples:

a) The steps (a-c) as recited in claim 1 is inconsistent, the first two limitations does not have an alphabetical step assign to them. The following steps are suggested:

Claim 1, line 3, before "applying an antenna" insert: -- a)--;

Claim 1, line 5, before "applying a connecting" insert: --b)--;

Claim 1, line 7, steps: "a)" should be --c)--;

Claim 1, line 12, step "b)" should be --d)--;

Claim 1, line 19, step "c)" should be changed to: --e)--, etc. As so to reflect their alphabetical order respectively.

b) Dependent claims 2-13 should be reviewed and modified to meet their dependent step accordingly.

c) "A" (claims 2-11) should be changed to: --The -- as so to reflect the dependent claims format. Appropriate correction is required.

d) Claims 4-10 being referring especially to step d) and there is no step d) recited in claim 1.

e) Claim 13 is being referring to step e and there is no step e recited claim 1.
Appropriate correction required.

Claim Rejections - 35 USC § 103

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2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-6 and 8-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 0595549 to Bradley et al.

Bradley et al disclose a method for producing a transponder (micro transponder) comprising the following steps:

a) Applying an antenna metallization 32 having a first 36 and a second connecting end 34 to a support substrate 30 (see Figs. 2-3, discussed at col. 3, lines 33-58);

b) applying at least a connecting metallization to a support foil 64 (see Fig. 5); c) applying a circuit chip 54 having a first and a second connecting area 58, 60 to said connecting metallization 72, 74 in such way that at least the first connecting area of the circuit chip is connected to the connecting metallization in an electrically conductive manner (see the details of Fig. 5, note that the layer of dielectric 64 of the applied reference is read on the flexible support foil of the present claims);

d) joining the support substrate 30 and the support (substrate) 64 in such way that the connecting metallization 72, 74 in connected to the first connecting end of the antenna 36 in an electrically conductive manner and that the second connecting area of the circuit chip 72 or 58 is connected to the second connecting end of the antenna metallization 34 in an electrically conductive manner (see Fig. 6); and

e) joining edge areas of the flexible support 64 to neighboring areas of the support substrate 30 so as to encapsulate at least the circuit chip (see Fig 7-9). Bradley et al however do not clear define that the substrate 64 being flexible as recited in claim 1, lines 10-11. However, it is inherently to provide a flexible support substrate for carrying, supporting and protecting the circuit chip members. Therefore, it would have been obvious to one ordinary skill in the art, at the time of the invention was made to use a conventional flexible support substrate type onto the invention of Bradley et al in order to obtain a desired transponder structure having a greater structural integrity and reliability.

Regarding claims 2-3, Bradley et al teach the flexible substrate being welded to the associated area of the chip support substrate by means of adhesive. Note that the associated area of chip substrate of Bradley et al read as the neighbouring area of the instant claims. Limitation of claim 3 is also met as discussed above.

Regarding claim 4, Bradley et al inherently disclose the step of applying a first 34 and a second 36 connecting metallization to the flexible support foil (see fig. 2-3) and the circuit chip 54 having connecting areas 58, 60 thereon (see Fig. 5). Further, Bradley et al teach that connecting the chip to the flexible substrate in the electrically conductive manner (see Fig. 7).

Limitation of claims 5-6 and 11 being suggested by Bradley et al (see Figs. 2-3). These Figs. define that the first connection area is opposed to the second area.

Regarding claims 9-10 and 12, Bradley et al do not teach the chip circuit which is arranged on opposed main surface of the support substrate and the first and second

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connecting metallizations being connected by means of through contacts to the end of the antenna metallization. Direct contact mount or contact mount by through hole is conventional and well known in the art. Therefore, I would have been obvious to one ordinary skill in the art at the time the invention was made to mount the chip circuit to the substrate support by the means of through contact.

Regarding claim 13, with respect to step e) being executed in vacuum. It would have been an obvious matter of design choice to perform this process in vacuum since applicant has not disclosed that the claimed step e if executed in vacuum would solve any stated problem or is for any particular purpose and it appears that the invention would perform equally well with the well known conventional mounting techniques as suggested by Bradley et al.

4. Claim 7, as understood is rejected under 35 U.S.C. 103(a) as being unpatentable over EP 0595549 to Bradley et al as applied above in view of Fidalgo (US 5,598,032).

Bradley et al do not teach wherein the circuit chip is introduced in an opening in the support substrate main surface to which the antenna metallization has been applied. This concept is conventional and well known to the art. In fact Fidalgo teaches the method as described above (see Fig. 7 shows the circuit chip being introduced into cavity (or opening) in the support substrate main surface, etc). Therefore, it would be obvious to one having skill in the art at the time the invention was made to employ the Fidalgo's teaching of a cavity as opening in the support substrate main surface for

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introducing of the circuit chip therefrom onto the method invention of Bradley et al as so to obtain a desired integral module is fixed to the bottom of the cavity substrate.

Prior Art References

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Prior art references are cited for their teaching of method of manufacturing an electronic module.

Conclusion

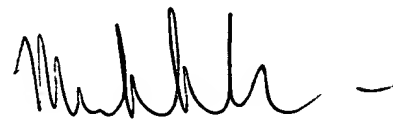
6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Minh Trinh whose telephone number is (703) 305-2887. The examiner can normally be reached on Monday -Thursday 8:00 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Vo can be reached on (703) 308-1789. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1148.

mt

9/6/07


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